

AMENDMENT  
1-15368IN THE CLAIMS

1. - 31. (Cancelled)

32. (Currently Amended) A method of providing, for a selected period of time, heated and humidified gas into a patient for a medical procedure comprising the steps of:

- a) directing a gas from a gas source into a chamber;
- b) humidifying the gas within the chamber with a volume of liquid;
- c) sensing the humidity of the gas as it exits the chamber; [[and]]
- d) ~~monitoring the humidity of the gas exiting the chamber, and~~
- [[e]]d) detecting when the humidity of the gas in the chamber is below a predetermined humidity level, and
- f) generating a recharge signal when the humidity of the gas in the chamber is below the predetermined humidity level.

33. (Currently Amended) The method of claim 32, further [compromises] comprising determining when the volume of liquid in the chamber requires replenishing based on the recharge signal humidity of the gas in the chamber.

34. (Currently Amended) The method of claim 33, wherein the step of detecting comprises determining when the relative humidity of the gas in the chamber drops below the predetermined humidity level a predetermined relative humidity threshold.

35. (Currently Amended) The method of claim 33, and further comprising the step of generating an alarm when it is determined that the volume of liquid in the chamber requires replenishing.

36. (Currently Amended) The method of claim 35, and further comprising the step of recharging the chamber with liquid in response to the alarm.

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37. (Original) The method of claim 35, wherein the alarm is continued until it is determined that the chamber has been replenished with liquid based on the humidity of the gas in the chamber.

38. (Currently Amended) The method of claim 32, and further comprising the step of generating an audio and/or visible alarm when it is determined that the humidity of the gas in the chamber drops below the predetermined humidity level a critical relative humidity threshold.

39. (Currently Amended) The method of claim 32, and further comprising steps of: heating the gas within the chamber with a heating element to a predetermined temperature; sensing the temperature of the gas as it exits the chamber; and controlling electrical power to the heating element so as to [regulate] keep the temperature of the gas at the predetermined temperature as it exits the chamber.

40. (Currently Amended) The method of claim 39, and further comprising the step of terminating electrical power to the heating element when it is determined that the humidity of the gas in the chamber drops below the predetermined a critical relative humidity threshold.

41. (Original) The method of claim 39, wherein the step of humidifying and the step of heating are performed on the gas substantially simultaneously within the chamber.

42. (Original) The method of claim 39, wherein the step of sensing the humidity and sensing the temperature are performed in the flow path of the gas downstream from the steps of heating and humidifying in the chamber.

43. (Original) The method of claim 32, and further comprising the step of positioning the chamber immediately adjacent the patient.

44. (Original) The method of claim 32, and further comprising the step of filtering the gas prior to the step of humidifying.

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45. - 52. (Cancelled)

53. (Currently Amended) A method for providing humidified gas to a patient for a medical procedure such that the humidity of the gas is monitored throughout the procedure, comprising the steps of:

- a) directing a gas from a gas source into a chamber;
- b) humidifying the gas within the chamber with a volume of liquid;
- c) sensing the humidity of the gas as it exits the chamber; [and]
- d) monitoring the humidity of the gas exiting the chamber, [and]
- e) detecting when the humidity of the gas is below a predetermined humidity level, and
- f) generating an audio or visual signal to the practitioner, based on the detected humidity level, to indicate that the chamber is in danger of going dry.

54. (Previously Presented) A method for providing humidified gas to a patient for a medical procedure such that heat loss in transfer of the gas is minimized, and such that the humidity of the gas is monitored throughout the procedure, comprising the steps of:

- a) providing a chamber immediately adjacent the patient,
- b) directing a gas from a gas source into the chamber;
- c) humidifying the gas within the chamber with a volume of liquid;
- d) sensing the humidity of the gas as it exits the chamber; and
- e) monitoring the humidity of the gas exiting the chamber; and
- f) detecting when the humidity of the gas is below a predetermined humidity level.

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55. (Currently Amended) A method for providing heated and humidified gas to a patient for a medical procedure such that heat loss in transfer of the gas is minimized, and such that the humidity of the gas is monitored and the temperature of the gas is controlled throughout the procedure, comprising the steps of:

- a) providing a chamber immediately adjacent the patient;
- b) directing a gas from a gas source into the chamber;
- c) humidifying the gas within the chamber with a volume of liquid;
- d) controlling the temperature of the gas within the chamber substantially simultaneously with humidifying the gas;
- e) sensing the humidity of the gas as it exits the chamber;
- f) monitoring the humidity of the gas exiting the chamber;
- g) detecting when the humidity of the gas is below a predetermined humidity level; and
- h) generating a recharge signal indicating that the humidity of the gas is below a predetermined humidity level.

56. (New) A method of providing, for any selected period of time, humidified and treated gas into a patient by other than inspiration or expiration, for a medical procedure, comprising the steps of:

- a) directing a gas from a source into a chamber;
- b) humidifying the gas within the chamber with a humidifying solution;
- c) treating the gas by admixing at least one agent, other than air or water, with the gas;

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- d) sensing the humidity of the gas after treatment;
- e) monitoring the humidity of the gas; and
- f) detecting when the humidity of the gas is below a predetermined humidity level.

57. (New) The method defined in Claim 56, further comprising the step of:

- a) generating a recharge signal when the humidity of the gas is below the predetermined desired level to prevent the chamber from going dry.

58. (New) The method defined in Claim 57, wherein the at least one agent is a liquid phase agent.

59. (New) The method defined in Claim 57, wherein the at least one agent is a solid phase agent.

60. (New) The method of Claim 32, and further comprising heating the gas within the chamber with a heating element to a temperature of from 35 to 40 degrees C ; sensing the temperature of the gas as it exits the chamber; and controlling electrical power to the heating element so as to keep the temperature of the gas as it exits the chamber in the range of 35 to 40 degrees C.

61. (New) The method of Claim 32, and further comprising heating the gas within the chamber with a heating element to a physiologic temperature, sensing the temperature of the gas as it exits the chamber; and controlling electrical power to the heating element so as to keep the temperature of the gas as it exits the chamber at the physiologic temperature.